10. Scoring Program

Program Name: Scoring.java Input File: scoring.dat

Geeks For Independent Thinking (GFIT) High School is having an invitational programming contest in the spring. You have been asked to write a program that will score the contest for them and provide a list of the results.

For the contest, there will be 7 problems that each team will be asked to solve. The maximum number of points a team can receive on any problem is 20 points. Points are awarded based on the difficulty of the problem, the correctness of the solution's results, and the elegance of the code.

Your program will add the scores for each of the 7 problems for each team entered in the contest and determine the 1st, 2nd, and 3rd place winners for the contest.

Input

The first line of input will contain a single integer `n` that indicates the number of contests to follow. For each contest, the first line will contain one line containing a single string, with no spaces, which is the name of the contest, followed by a space and an integer `m` (`m`>=3), which is the number of teams in the contest. Each of the following `m` lines will contain the acronym of the team's name followed by the scores that team received on the 7 problems. Each of these items will be separated by a space.

Output

For each contest, the output will consist of four lines. The first line will contain the name of the contest. The second line will contain the name of the contest winner, a space, and the number of points scored. The third line will contain the name of the contest's 2nd place team, a space, and the number of points scored. The fourth line will contain the name of the contest's 3rd place team, a space, and the number of points scored. Print a blank line after the results of the different contests. A blank line after the last contest is optional.

Note: There will be no ties in the top three places.

Example Input File

```
2
GeekFest 5
PASCAL 15 12 0 13 18 12 0
LOVELACE 4 6 16 12 0 0 7
FIRTH 5 15 13 14 13 17 0
BJARNE 4 7 15 10 0 0 0
GOSLING 12 15 9 4 9 17 13
ClassWars 4
FRESH 5 17 15 18 15 4 0
SOPH 0 12 15 0 0 9 10
JUNIOR 15 12 14 17 12 15 10
SENIOR 15 16 13 0 0 0 4
```

Example Output to Screen

```
GeekFest
GOSLING 79
FIRTH 77
PASCAL 70

ClassWars
JUNIOR 95
FRESH 74
SENIOR 48
```